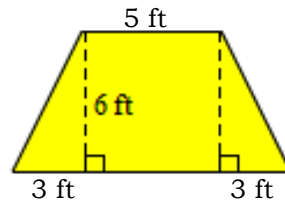
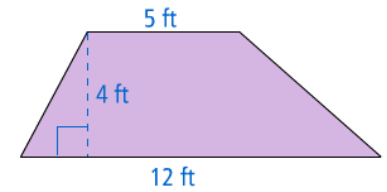


An Overview of Area

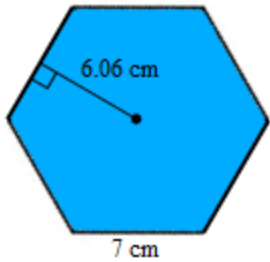
1N. Find the area of the trapezoid.



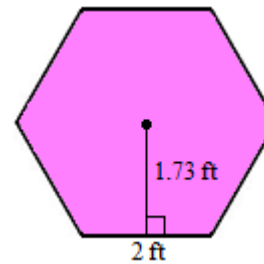
1H. Find the Area of the trapezoid.



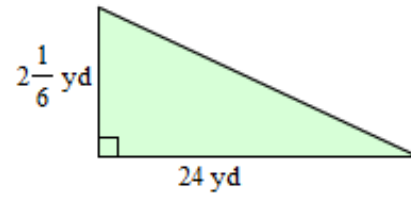
1N. Find the area of the hexagon.



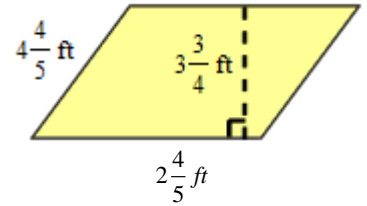
2H. Find the Area of the hexagon.



3N. Find the area of the triangle.



3H. Find the area of the parallelogram.

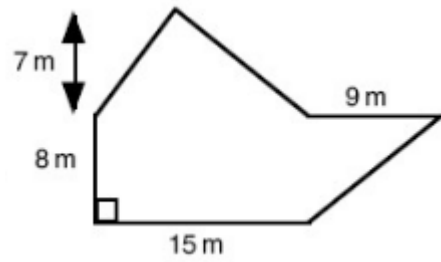


4N. Find the base of a parallelogram as a fraction in simplest form if the area of the parallelogram is 24 ft^2 and the height is $2\frac{2}{3}$ ft.

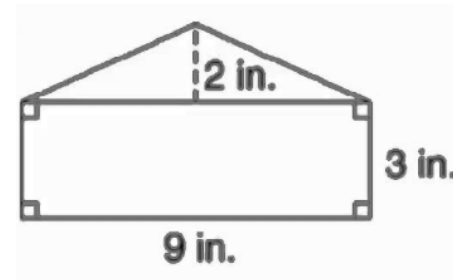
4H. Find the base of a rectangle if the area is 10 cm^2 .



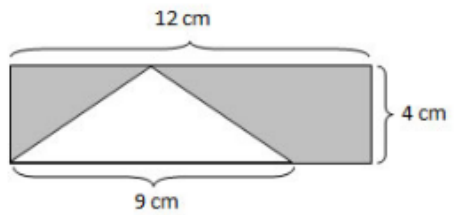
5N. The area of the polygon.



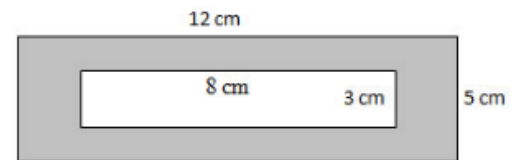
5H. Find the area of the polygon.



6N. The area of the shaded region.



6H. Find the area of the shaded region.



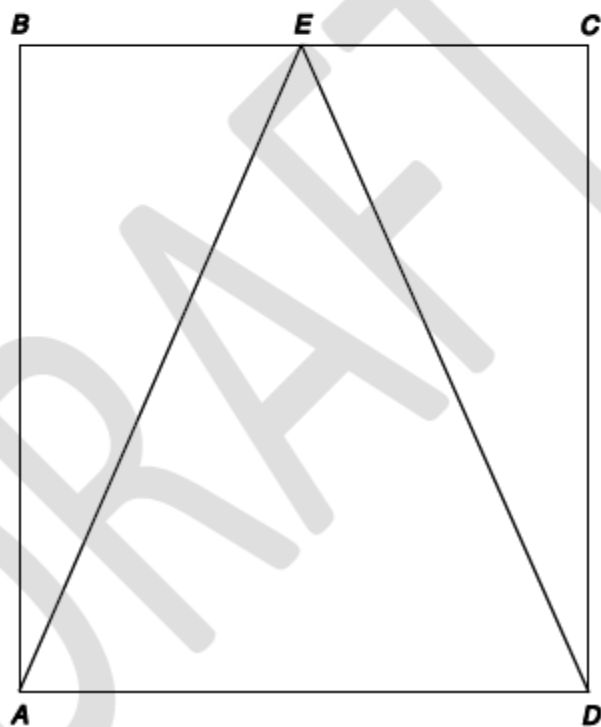
11

Triangle ADE is inside rectangle $ABCD$. Point E is halfway between points B and C on the rectangle. Side AB is 8 cm and side AD is 7 cm.

Part A: What is the area of triangle ADE ? Show your work.

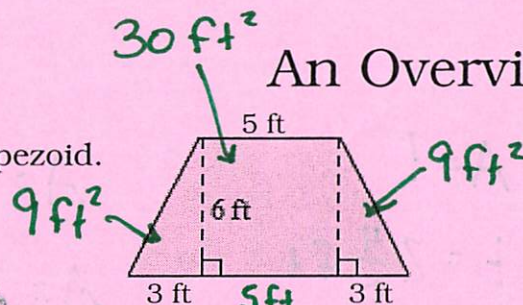
Part B: What is the ratio of the area of triangle ABE to the area of triangle ADE ?

Part C: What is the ratio of the area of triangle CDE to the area of rectangle $ABCD$?



An Overview of Area

1N. Find the area of the trapezoid.



$$A = ?$$

$$b_1 = 5 \text{ ft}$$

$$b_2 = 11 \text{ ft}$$

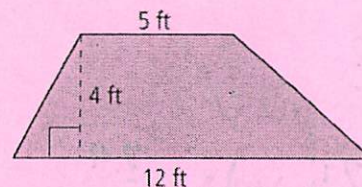
$$h = 6 \text{ ft}$$

$$A = \frac{h \cdot (b_1 + b_2)}{2}$$

$$A = \frac{6 \cdot (5 + 11)}{2}$$

$$A = \frac{6 \cdot 16}{2} = 48 \text{ ft}^2$$

1H. Find the Area of the trapezoid.



$$A = ?$$

$$b_1 = 5 \text{ ft}$$

$$b_2 = 12 \text{ ft}$$

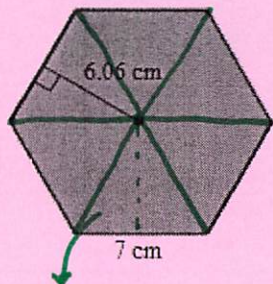
$$h = 4 \text{ ft}$$

$$A = \frac{h \cdot (b_1 + b_2)}{2}$$

$$A = \frac{4 \cdot (5 + 12)}{2}$$

$$A = \frac{4 \cdot 17}{2} = 34 \text{ ft}^2$$

1N. Find the area of the trapezoid.



hexagon

Find Area of 1 Δ
and $\times 6$

$$A = \frac{b \cdot h}{2}$$

$$A = \frac{7 \cdot 6.06}{2}$$

$$A = 21.21 \text{ cm}^2$$

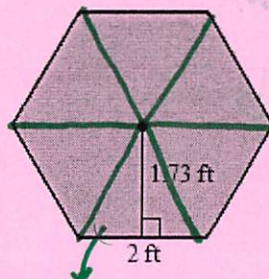
$$\times 6 \quad \text{Total Area} \quad 127.26 \text{ cm}^2$$

$$A = ?$$

$$b = 7 \text{ cm}$$

$$h = 6.06 \text{ cm}$$

2H. Find the Area of the hexagon.



$$A = ?$$

$$b = 2 \text{ ft}$$

$$h = 1.73 \text{ ft}$$

$$A = \frac{b \cdot h}{2}$$

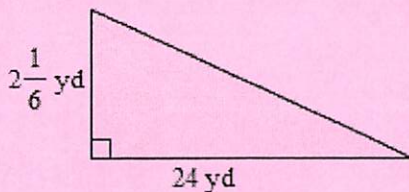
$$A = \frac{2 \cdot 1.73}{2}$$

$$A = 1.73 \text{ ft}^2$$

$\times 6$

$$\text{Total Area} = 10.38 \text{ ft}^2$$

3N. Find the area of the triangle.



$$A = ?$$

$$b = 24 \text{ yds} \quad \frac{24}{1}$$

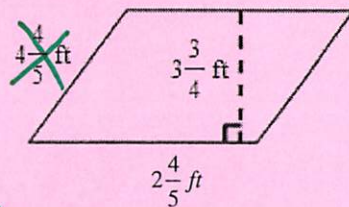
$$h = 2\frac{1}{6} \text{ yds} \quad \frac{13}{6}$$

$$A = \frac{\frac{24}{1} \cdot \frac{13}{6}}{2}$$

$$A = \frac{52}{2}$$

$$A = 26 \text{ yd}^2$$

3H. Find the area of the parallelogram.



$$A = ?$$

$$b = 2\frac{4}{5} \text{ ft}$$

$$h = 3\frac{3}{4} \text{ ft}$$

$$A = b \cdot h$$

$$A = 2\frac{4}{5} \cdot 3\frac{3}{4}$$

$$A = \frac{14}{5} \cdot \frac{15}{4} = \frac{21}{2}$$

$$A = 10\frac{1}{2} \text{ ft}^2$$

4N. Find the base of a parallelogram as a fraction in simplest form if the area of the ~~rectangle~~ ^{parallelogram} is 24 ft^2 and the height is $2\frac{2}{3} \text{ ft}$.

$$A = 24 \text{ ft}^2$$

$$b = ?$$

$$h = 2\frac{2}{3} \text{ ft}$$

$$A \div h = b$$

$$24 \div 2\frac{2}{3}$$

$$\frac{24}{1} \div \frac{8}{3}$$

$$\frac{24}{1} \cdot \frac{3}{8} = \frac{9}{1}$$

$$\text{base} = 9 \text{ ft}$$

4H. Find the base of a rectangle if the area is 10 cm^2 .



$$A = 10 \text{ cm}^2$$

$$b = ?$$

$$h = \frac{4}{5} \text{ cm}$$

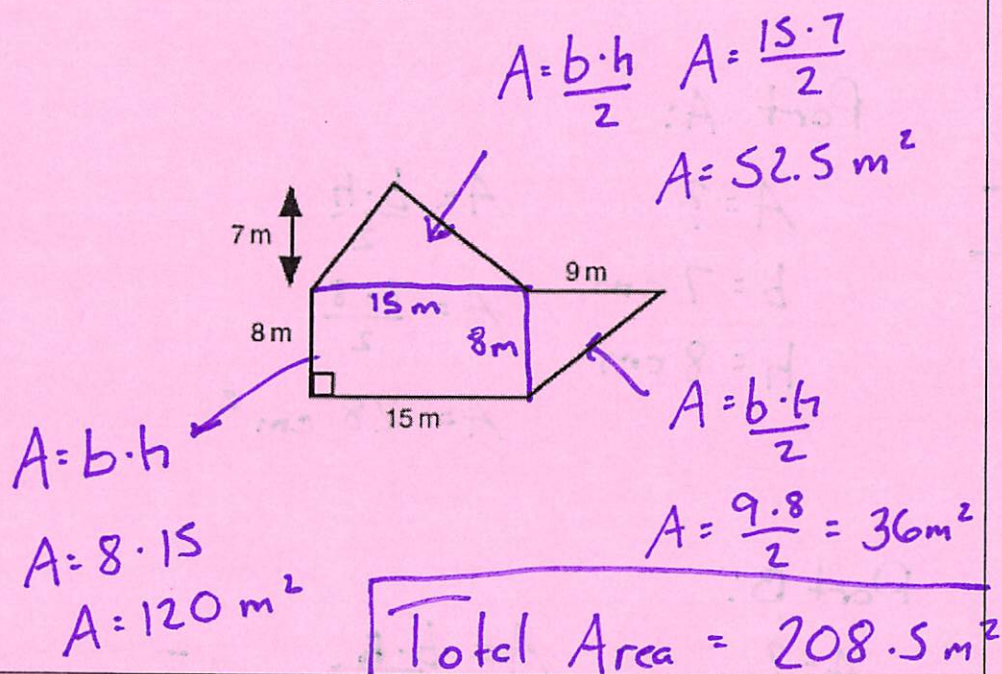
$$A \div h = b$$

$$10 \div \frac{4}{5} = b$$

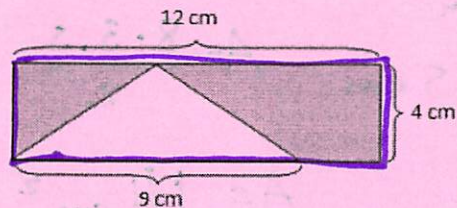
$$\frac{10}{1} \cdot \frac{5}{4} = \frac{25}{2}$$

$$\text{Base} = 12\frac{1}{2} \text{ cm}$$

5N. The area of the polygon.



6N. The area of the shaded region.



Rectangle

$$A = ?$$

$$b = 12 \text{ cm}$$

$$h = 4 \text{ cm}$$

$$A = b \cdot h$$

$$A = 12 \cdot 4$$

$$A = 48 \text{ cm}^2$$

Triangle

$$A = ?$$

$$b = 9 \text{ cm}$$

$$h = 4 \text{ cm}$$

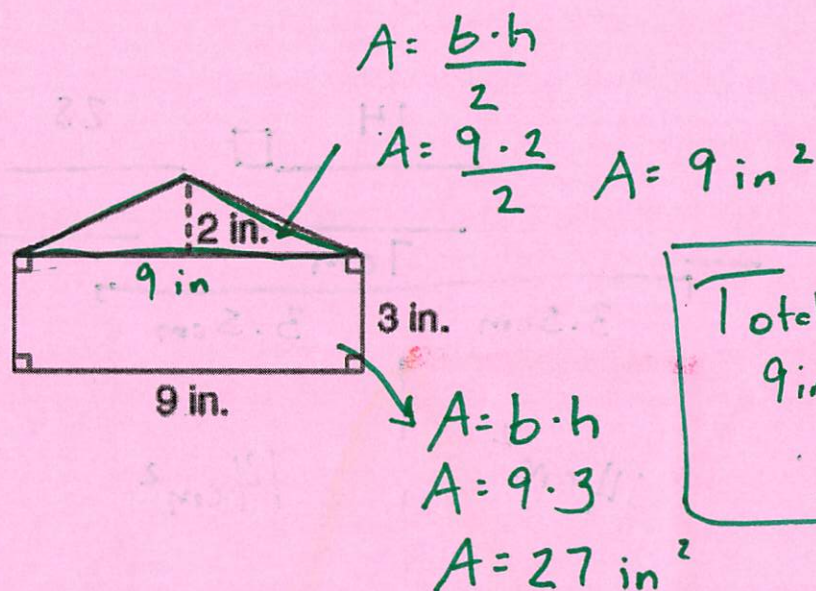
$$A = \frac{b \cdot h}{2}$$

$$A = \frac{9 \cdot 4}{2}$$

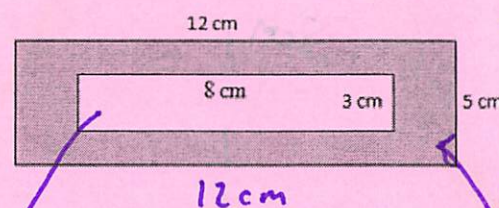
$$A = 18 \text{ cm}^2$$

$$\text{Shaded Area} = 48 - 18 = 30 \text{ cm}^2$$

5H. Find the area of the polygon.



6H. Find the area of the shaded region.



$$A = b \cdot h$$

$$A = 8 \cdot 3$$

$$24 \text{ cm}^2$$

$$A = b \cdot h$$

$$A = 12 \cdot 5$$

$$A = 60 \text{ cm}^2$$

$$\text{Area of Shaded} = 60 \text{ cm}^2 - 24 \text{ cm}^2 = 36 \text{ cm}^2$$

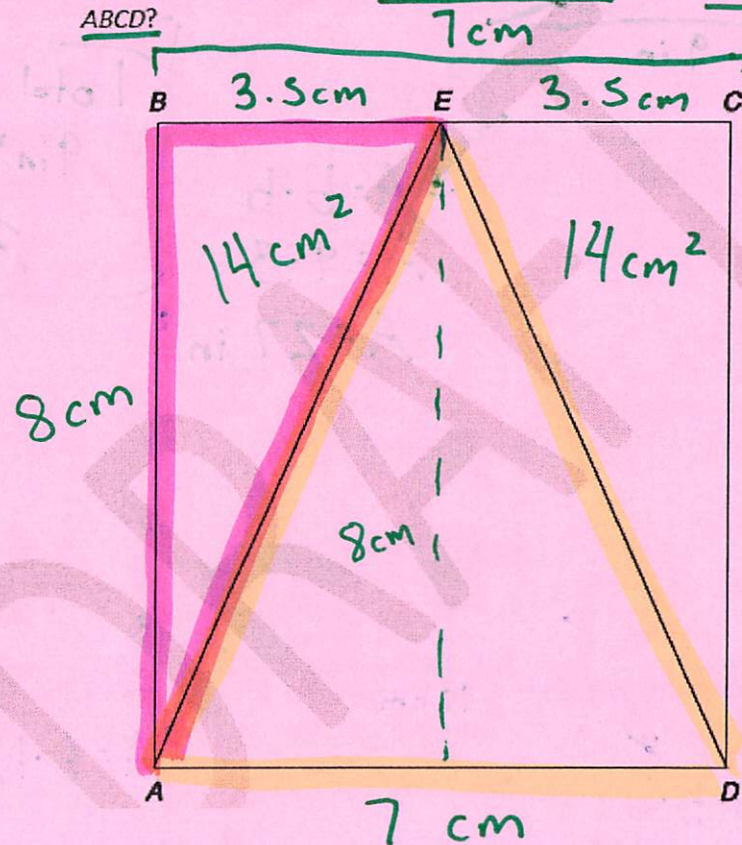
11

Triangle ADE is inside rectangle $ABCD$. Point E is halfway between points B and C on the rectangle. Side AB is 8 cm and side AD is 7 cm.

Part A: What is the area of triangle ADE ? Show your work.

Part B: What is the ratio of the area of triangle ABE to the area of triangle ADE ? 14 28

Part C: What is the ratio of the area of triangle CDE to the area of rectangle $ABCD$? 7 cm



Part A:

$$A = ?$$

$$b = 7 \text{ cm}$$

$$h = 8 \text{ cm}$$

$$A = \frac{b \cdot h}{2}$$

$$A = \frac{7 \cdot 8}{2}$$

$$A = 28 \text{ cm}^2$$

Part B:

$$A = ?$$

$$b = 8 \text{ cm}$$

$$h = 3.5 \text{ cm}$$

$$A = \frac{b \cdot h}{2}$$

$$A = \frac{8 \cdot 3.5}{2}$$

$$A = 14 \text{ cm}^2$$

1 : 2
ratio

Part C:

$$14 : 56$$

1 : 4 ratio